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Is Korea a Strong Internet Nation?

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The spectacular growth of the Internet in Korea has propelled her to the very top of the international rankings based on technology peneration statistics. The resulting international attention and national pride have fostered the notion of "Korea—a strong Internet nation." The ready embrace of this idea by officials and the public at large has made a critical evaluation almost an anathema. This article reviews the published critiques, which have been rare and scattered, and opens up the "what next" question for an unbounded discussion.

Keywords development strategy, Internet diffusion, IT policy, Korea, statist governance, strong Internet nation

Both domestically and internationally, Korea is generally acknowledged to be a strong Internet nation.[1] Although this notion is somewhere between a considered assessment and popular lore, it is in many regards not a far-fetched one. Internet-related statistics, research papers, institutional reports, and popular press articles suggest an element of truth (e.g., ITU, 2003a, 2003b; MIC, 2004; NCA, 2003, 2004; OECD, 2001; WEF, 2003). In any event, the Korean case is often presented as a benchmark for other countries (ITU, 2003b; Lee, 2003; MIC, 2003, 2004; NCA, 2003, 2004; OECD, 2001; WEF, 2003).

The regular media reports of increasing technology, especially broadband, penetration statistics, and repeated claims of government and industry officials have made the notion of "Korea—a strong Internet nation" almost an article of faith. The ready embrace of this idea by the public is understandable as part of a larger story of a collective national experience. In 1997 Korea faced the worst financial crisis since the Korean War. But then Korea rebounded rapidly, thanks to the explosive growth of the IT industry (Lee & McNulty, 2003). The pride in national resilience, accomplishments in IT, and the promise of an even stronger country have come together to make this notion resonate in the national consciousness.

Not surprisingly, the notion of "Korea—a strong Internet nation" has rarely been subjected to sustained interrogation. Criticism has been rare and scattered. The point of this article is not to highlight the shortfalls in Korea's achievements. Nor is it to validate whether or not Korea is a strong Internet nation. The objective is to open up the "*what next*" question for an unbounded discussion.

The article starts with an overview of the development of the Internet in Korea. Then it reviews the critiques that have been published so far. Based on a review of the critiques, the article offers suggestions for the future development of the Internet in Korea.

"KOREA—A STRONG INTERNET NATION"

The conventional wisdom equates the notion of strong Internet nation with high-capacity infrastructure. Three indicators are used to gauge the development of this infrastructure: (1) broadband (high-speed) Internet subscribers; (2) Internet users; and (3) PCs in use. The first two indicators are important as they reveal the percentage of households with Internet access and the percentage of Internet users—the actual utilization of the Internet. The last indicator is crucial because the computer is an indispensable device for Internet access.

According to the Ministry of Information and Communication (MIC), the number of broadband Internet subscribers has jumped from slightly less than 4 million in 2000 to 10 million in 2002 and to 12 million in 2004. And in terms of subscribing households, the rate was 27% in 2000, 69% in 2002, and 77% in 2004 (MIC, 2004). In 2002, Korea ranked fourth, behind Iceland, Sweden, and the United States, with 55.2 Internet users per 100 inhabitants (ITU, 2003a). Now Korea leads the world in broadband Internet usage. In 2000 PC penetration had reached only 19% of the all households (NCA, 2001), but the rate

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increased to 42% in 2001 (EIAK, 2002) and 56% in 2002, when the corresponding figure for the United States was 63% (ITU, 2003c). These numbers clearly show that Korea is a leading nation in the deployment of high-capacity infrastructure.

Not surprisingly, the foreign popular press characterizes Korea as "the bandwidth capital of the world" (Herz, 2002), "the land of broadband" (*Economist*, 2003), and "the world leader in broadband" (Lacy, 2005). Such accolades reinforce the expansive self-image of the MIC and the public at large.

Building a strong Internet infrastructure—the Korean information infrastructure (KII)—has always been high on the political agenda in Korea since the beginning of the 1990s (Jeong & King, 1997; Lee et al., 2003). This policy is based on the belief that information technology (IT), a catchall concept, is the new growth engine and will pave the way for a Korean information society. From the early 1980s, before the Internet assumed a center stage, the Korean government has poured resources to modernize the telecommunications infrastructure (Korean Telecom [KT], 2000).[2] Over the last two decades the Korean government has undertaken numerous policy initiatives to further the development of IT in Korea. They include financial, legal, and administrative support for the IT sector, major public investment in telecommunications infrastructure, deregulation of the telecommunications industry, subsidies for PCs in school, and other such initiatives (Choudrie et al., 2003; ITU, 2003b; Hyun & Lent, 1999; Hong, 1998; Lee & Chan-Olmsted, 2004; Lee et al., 2003). This series of "IT drives" was pursued with a great sense of urgency. Brian and Moon (2000) have characterized it as the "digital or die mentality," which acquired an even greater sense of urgency during Korea's worst recession in the late 1990s.

It should be noted that these policy measures could not have been carried out without the developmental state tradition of strong government leadership in Korea. The MIC reigns supreme in the IT policymaking arena. It has the authority, expertise, and self-esteem that only the state can command in Korea (Hong, 1998; Hyun & Lent, 1999; Song, 2002).

CRITIQUES

The notion of "Korea—a strong Internet nation" postulates that Korea transformed herself "from the land of morning calm to ICT hotbed" (Lee, 2003, p. 7) due to the government's proactive infrastructure policy. There is also great pride in the fact that the KII now serves as a role model "for other nations in their quest for ICT excellence" (WEF, 2003, p. 22).

There are a number of critiques that go against this celebratory logic. However, the spectacular growth of the Internet has made it difficult to criticize the MIC, which is "an untouchable organization" (Hong, 1998). Furthermore, the idea of "Korea—the world IT leader" has been so widely embraced by the public that it has become an anathema to ask a searching question.

No wonder the critiques are limited to a few critical comments or short columns scattered here and there (e.g., Ahn, 2004; Hwang, 2003; Ik Kim, 2003; Yong Kim, 2003; Yoon Kim, 2003; Yung Kim, 2002). While they are journalistic and sketchy, these critiques strike the right chord as they question the notion of "Korea—a strong Internet nation" itself. They also point out the need for reformulating the hardware-centered Internet policy.

However, they do not argue with the fact that the Internet and PCs have widely penetrated Korean society in a very short span of time, and that qualifies the nation as an IT powerhouse. They also acknowledge the development of exemplary applications and services in Korea that effectively actualize the cultural and political potential of the Internet. For instance, "*Ohmynews*" offers ordinary people a platform to contribute as citizen reporters and thus generates a new, participatory form of online journalism. "Nate," a Korean messenger program, has won users all across the nation and is now one of the top messenger services. "Cyworld," a social networking service that secured over 8 million subscribers in a few years, has become a sensational cultural phenomenon with its personal mini-home pages.

But still the critical issues behind glamorous success stories should not be overlooked. First, the critiques begin with a warning against the hyperbolic language of Internet growth in Korea (Ahn, 2004; Hwang, 2003). Quite clearly, Korea has been ranking high in IT standings. But in IT standings, "strong" is generally operationalized in quantifiable terms. While statistics are crucial for administrative purposes, they do not tell the whole story. They need to be carefully interpreted (Rainie & Bell, 2004). When a quantitative mode of thinking is prioritized, the more fundamental and complex issues like the social and cultural values of informatization policy get marginalized.

The critiques closely examine Internet-related statistics that supposedly support the "Korea—a strong Internet nation" claim. They show that the detailed breakdown of data reveals a very different picture. The so-called "digital divide" has been widening across income, education, region, gender, and occupation divisions (Chen & Wellman, 2003; Yung Kim, 2002). For instance, the distribution of Internet access is heavily skewed toward the younger generation—the teens and twenty-somethings—as they account for almost 65% of the Internet users (NCA, 2003). The Internet, which is touted as a technology that will eliminate regional hierarchy, is paradoxically concentrated in Seoul to the extent that it forms its own "enclave" (Huh & Kim, 2003).[3] With respect to network security, Korea dwarfs to a lower rank (Ahn, 2004; OECD, 2001). Thus the selective use of statistics, which are at best "rough approximations" (Chen & Wellman, 2003), to prove the "Korea—a strong Internet nation" claim is largely a misuse, or even an abuse, of statistics.

Second, in Internet usage, entertainment such as online gaming far outweighs any other use. Entertainment itself is not necessarily a negative factor, as it has played an important role in the development of new media. But the fact that Korea has comparatively fewer hosts and web sites should be noted in relation to entertainment-oriented Internet use (Yung Kim, 2002). This suggests that "the broadband Internet [in Korea] . . . appears to have developed with a focus on information or content *consumption*" rather than on its production (Lee & Chan-Olmsted, 2004, p. 672, emphasis added). Therefore Korea's Internet success is questionable at a qualitative level (Jung et al., 2005). It may not be a coincidence that the overall quality of IT manpower is low in Korea. IT experts like architects and system analysts are in short supply, while the pool of programmers, web designers, and web masters overflows (Ik Kim, 2003; Ham, 2004).

Third, the critiques address the issue of arrogance and self-complacency latent in the notion of "Korea—a strong Internet nation" (Ahn, 2004; Yoon Kim, 2003; Hwang, 2003). The fact that most Korean IT industries are parochial and confined within the peninsula is overlooked. Compared with the Korean consumer electronics industries, they are not significant players in the international telecommunications equipment and Internet service markets (Yong Kim, 2003). Korean IT products, both hardware and software, are nowhere near the state of the art in terms of core components and patent technologies. Consequently, every year Korea pays huge amounts of royalty to foreign intellectual property and patent owners. Korea still has a long way to go before it becomes a player on the global stage.

In sum, the critiques attest that the notion of "Korea—a strong Internet nation" is at best a half-truth. They highlight the problems of Internet policy, which has been utterly biased toward the hardware sector. The critiques also alert the policymakers to the pitfalls of exaggeration, the misuse of statistics, and the dangers of complacency.

CONCLUSION

At the core of the critiques lies the question of "what next"—the future priorities of IT policymakers. One of the first things they need to do is to get past the hyperbole of Internet penetration statistics. For a nation to be ranked as number one or two in the usual IT rankings is meaningful only in a narrowly defined statistical sense. Policymakers should look beyond conventional statistics to indicators such as the quality of life or social participation indexes (Lievrouw, 2000). Just as the human development indexes have broadened the thinking of development economists beyond per capita gross domestic product (GDP) measures, the corresponding indexes for the information environment will help them see the big picture more clearly.

Second, the initial task of building the basic Internet infrastructure has almost been completed in Korea. From the hardware perspective, Korea may have been "*over-Internetized*" and a hardware-oriented policy is no longer adequate. The power of Internet or more broadly of IT does not reside in physical artifacts themselves. The policymakers need to keep their eyes on the bigger goal—creation of a knowledge society. To harvest the rewards of the investments in an advanced Internet infrastructure, policymakers should be equally concerned about upgrading "the basic social infrastructure" such as teaching and research capabilities (Blom et al., 2002, p. 341).

Third, the Korean government and IT industries persistently propagate and amplify the idea of "Korea—a strong Internet nation" to the extent of getting mesmerized by their own hype. The danger is that this echo chamber effect can generate a tunnel vision that gets fixated on a simplistic information technology-led development strategy. As Sein and Harindranath (2004) point out, the relationship between IT and national development is not necessarily linear, particularly when it comes to the enhancement of social, cultural, and human capital of a society. In short, narrow technology-centric thinking should not guide the IT policymaking process.

Last but not least, the Korean government has sought to pave the road into the information future by appropriating various policy tools and grafting them onto the traditional system of centralized and top-down governance. Now what the IT policymakers in Korea need to ask is whether such strong statist governance is appropriate for the innovation-driven high-tech economy they seek to foster. Hart and Kim (2000) argue that different technologies require different governance structures. In order for Korea to progress further in the IT arena, it needs to advance from the stage of hardware assembly and manufacturing to that of software knowledge production, for which the system of centralized, hierarchical control is not appropriate. The policymakers need to reformulate IT policy framework away from that of developmental, interventionist governance.

It is undeniable that Korea has achieved an impressive level of infrastructure growth, which will certainly provide an advantageous springboard for the next stage of development. But the move into the proverbial "next stage" will also require a new way of thinking.

NOTES

1. This is direct translation of a Korean term connoting that the nation has achieved a remarkable success in the arena of Internet diffusion and adoption compared with other countries.

2. Before the 1980s, the rate of telephone penetration in Korea was less than 10 access lines per 100 inhabitants (KT, 2000).

3. This is not a Korea-only phenomenon. For instance, a select group of metropolitan cities operate as powerful centers of telecommunications networks in America (Moss & Townsend, 2000). However, the difference between the two is the scale and scope of the dominance of the center over the hinterland.

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